

CLAIMS

What is claimed is:

1. A computerized system that transforms hierarchical data into a rowset, the system comprising:
 - a parser that parses the hierarchical data to form an active store; and
 - a query processor that receives a query including a number of metaproperties and that uses the query in selecting data from the active store to form the rowset.
2. The computerized system of claim 1, wherein the parser comprises:
 - a module that converts the hierarchical data to an internal representation in the active store.
3. The computerized system of claim 2, wherein the internal representation is a document object model (DOM).
4. The computerized system of claim 2, wherein the internal representation is an edge table.
5. The computerized system of claim 4, wherein the hierarchical data is XML data.
6. The computerized system of claim 2, wherein the module comprises:
 - a module that identifies nodes in the hierarchical data.

7. The computerized system of claim 1, wherein the query comprises:

a Structured Query Language (SQL) statement.

8. The computerized system of claim 7, wherein the Structured Query Language (SQL) statement comprises:

a SELECT statement.

9. The computerized system of claim 8, wherein the query includes row information and the column information comprising:

a row pattern and one or more column patterns that identifies information in the XML active store.

10. The computerized system of claim 1, wherein the hierarchical data is XML data.

11. The computerized system of claim 1, wherein the hierarchical data is SGML data.

12. A method comprising:
identifying row and column information in hierarchical data;
and

using a number of metaproperties and the row and column information in transforming the hierarchical data into a rowset.

13. The method of claim 12, wherein identifying row and column information in the hierarchical data comprises:

using a row pattern to identify row information in the hierarchical data; and

using a column pattern to identify column information in the hierarchical data.

14. The method of claim 12, wherein using a number of metaproperties and the row and column information in transforming the hierarchical data into a rowset comprises:

using a parent ID metaproperty in transforming the hierarchical data into a rowset.

15. The method of claim 14, wherein using a parent ID metaproperty in transforming the hierarchical data into a rowset comprises:

using the parent ID metaproperty in forming an edge table for use in transforming the hierarchical data into a rowset.

16. The method of claim 12, wherein using a number of metaproperties and the row and column information in transforming the hierarchical data into a rowset comprises:

using a parent ID metaproperty and a parent metaproperty in transforming the hierarchical data into a rowset.

17. The method of claim 12, further comprising:
processing the rowset using relational techniques to form a second rowset.

18. The method of claim 17, further comprising:
transforming the second rowset into a second hierarchical data stream.

19. The method of claim 12, further comprising:
identifying and using implicit data in transforming the hierarchical data into a rowset.

20. A method comprising:
forming a rowset from an XML data file;
adding overflow data to the rowset to form a second rowset;
and
converting the second rowset into a second XML file without
loss of data.
21. The method of claim 20, wherein forming a rowset from an
XML data file comprises:
forming a query including a number of metaproperties; and
processing the XML data file using the query to form the
rowset.
22. The method of claim 21, wherein adding overflow data to the
rowset to form a second rowset comprises:
adding a column to the rowset in which to include the overflow
data.
23. A method comprising:
converting a first hierarchical data stream into a rowset;
inserting information into the rowset; and
converting the rowset back into a second hierarchical data
stream without loss of data.
24. The method of claim 23, wherein converting the rowset back
into a second hierarchical data stream without loss of data comprises:
using a number of metaproperties in converting the rowset
back into the second hierarchical data stream.
25. A method comprising:

receiving a rowset; and
using a number of metaproperties in transforming the rowset
into an XML data file.

26. The method of claim 25, wherein receiving a rowset
comprises:

receiving a rowset including overflow data.

27. The method of claim 25, further comprising:
transmitting the XML data file.

28. The method of claim 25, wherein receiving a rowset
comprises:

receiving a rowset having a first data field associated with an
ID metaproperty and a second data field associated with the ID metaproperty.

29. The method of claim 28, wherein using a number of
metaproperties in transforming the rowset into XML data comprises:

fusing the first data field to the second data field in the
process of converting the rowset into an XML data file.

30. A computer-readable medium having computer-executable
instructions for performing operations comprising:

using a number of metaproperties associated with a rowset to
convert the rowset to an XML active store; and

converting the XML active store to form XML formatted
information.

31. The computerized system of claim 30, further comprising:
an XML formatter for transforming the active store to a
second XML data file.

32. A computer-readable medium having computer-executable instructions for performing operations comprising:

converting a first XML data stream into a rowset;
inserting information having metaproperties into the rowset;

and

converting the rowset back into a second XML data stream without loss of data.

33. A computer-readable medium having computer-executable instructions for performing operations comprising:

identifying row and column information in a hierarchical data stream; and

using implicit information and the row and column information in transforming the hierarchical data stream into a rowset.

34. The computer-readable medium of claim 33, wherein the hierarchical data stream is an XML data stream.

35. The computer readable medium of claim 33, wherein the hierarchical data stream is an SGML data stream.

36. The computer readable medium of claim 33, wherein the hierarchical data stream is derived from data capable of being represented in a graph.

37. A computerized system for transforming hierarchical data into a rowset, the system comprising:

means for parsing the hierarchical data to form an active store; and

means for receiving a query including a number of metaproperties and for using the query in selecting data from the active store to form the rowset.